

CLAIMS

1. A composite article comprising at least one metal reinforcement
element embedded in a polymer material, said metal reinforcement
5 element being at least partially coated with an adhesion promoting
layer, said adhesion promoting layer being interposed between said
metal reinforcement element and said polymer material,
characterized in that said adhesion promoting layer comprises a first
component and a second component, said first component
10 comprising an organofunctional silane and said second component
comprising a hyperbranched polymer.
2. A composite article according to claim 1, whereby said second
component is present in a concentration lower than 20 wt %.
- 15 3. A composite article according to claim 1 or 2, whereby said
organofunctional silane comprises an amino-organofunctional silane.
4. A composite article according to any one of the preceding claims,
20 whereby said hyperbranched polymer has 1 to 5 generations.
5. A composite article according to any one of the preceding claims,
whereby said hyperbranched polymer has at least one functional end
group.
- 25 6. A composite article according to any one of the preceding claims,
whereby said hyperbranched polymer has an average of at least 16
end groups per molecule.
- 30 7. A composite article according to any one of the preceding claims,
whereby said hyperbranched polymer has an average of at least 32
end groups per molecule.

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8. A composite article according to any one of claims 5 to 7, whereby said end groups are hydroxyl, thiol, amine or epoxy groups.
- 5 9. A composite article according to any one of the preceding claims, whereby said metal reinforcement element comprises an elongated metal element or a structure comprising a number of elongated metal elements.
- 10 10. A composite article according to any one of the preceding claims, whereby said metal reinforcement element is coated with at least one metal or metal alloy coating before the adhesion promoting layer is applied.
- 15 11. A composite article according to claim 10, whereby said metal or metal alloy coating comprises zinc or a zinc alloy.
- 20 12. A composite article according to any one of the preceding claims, whereby said polymer material comprises a thermoplastic polymer material.
- 25 13. A method of manufacturing a composite article as defined in any one of claims 1 to 12, said method comprising the steps of
- providing a metal reinforcement element;
 - applying an adhesion promoting layer on at least a part of said metal reinforcement element, said adhesion promoting layer comprising a first component and a second component, said first component comprising an organofunctional silane and said second component comprising a hyperbranched polymer;
 - embedding said metal reinforcement element coated with said adhesion promoting layer in a polymer material.
- 30 14. A method according to claim 13, further comprising the step of

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- applying a metal or metal alloy coating before the application of said adhesion promoting layer.

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15. The use of a composite article as defined in any one of claims 1 to 11 as strip for a hose.

16. The use of a composite article as defined in any one of claims 1 to 12 as cable.